Effect of Brainstorming and Expository Teaching Methods on Students Academic Performance in Business Studies in Secondary Schools, Akwa Ibom State

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Abstract
The study was carried out to determined effect of brainstorming teaching methods on students' academic performance and interest in Business Studies in secondary schools in Akwa Ibom State. Quasi-experimental research design was used for this study. A sample size of 147 students were selected from a population of 38, 293 junior secondary three (JS 3) students in all the 270 public secondary schools in Akwa Ibom State. Purposive sampling technique was used for the selection. Researcher-developed instruments tagged: "Business Studies Performance Test (BSPT)" and "Business Studies Interest Inventory (BSII)" were used for data collection. Mean and standard deviation were used to answer the research questions while Analysis of Covariance (ANCOVA) was used to test the hypotheses at .05 level of significance. The major findings of the study showed that there is significant difference in the mean performance score of students taught the concept of balance sheet using brainstorming and expository teaching methods and that there is significant difference in the mean interest scores of students taught the concept of balance sheet using brainstorming and expository teaching methods. It was recommended among others that, the state ministries of education should organize seminars and workshops to create awareness to teachers on the importance of brainstorming in order to enhance academic performance of students taught balance sheet in business method.

Key Words: Academic, Brainstorming, Expository, Performance, students

Introduction

The essence of any educational programme is to ensure that the products of the system are equipped with the relevant knowledge, skills and attitude needed to contribute meaningfully to the economic development of the nation. Business Studies is one of the subjects that can equip secondary school students with relevant skills and knowledge to live as functional human beings in the society (Rufus, 2015). Business Studies is widely recognized as an effective pivot for development of professional and skilled manpower in all aspects of commercial, industrial and managerial areas. The advent of Business Studies stresses the need for providing students in Public Schools with the educational experience which equips them with saleable skills and competencies. Business Studies is a vocational subject taught in junior secondary schools in Nigeria to help junior secondary students who may not proceed to senior secondary schools to

graduate with necessary professional skills that will enable them to be useful to themselves and the society in which they live.

These laudable objectives of teaching Business Studies at the secondary school level can be achievable if there is a departure from the expository method of teaching which is widely used in most secondary schools in Nigeria (Simon, 2022). This method involves the teacher delivering content by writing on a chalkboard while students take notes. The expository teaching method has been a longstanding teaching strategy, particularly favoured for its simplicity and cost-effectiveness.

Despite its widespread use, this approach has several disadvantages. Firstly, it is largely teacher-centered, which limits student engagement and interactive learning opportunities (Liang & Akiba, 2015). Additionally, this method does not cater for diverse learning styles, as it predominantly supports auditory and visual learners, neglecting kinesthetic learners who benefit from hands-on activities. Moreover, the static nature of chalkboard instruction fails to incorporate interactive learning that can enhance understanding and retention of complex concepts. These limitations suggest that while the expository teaching method is accessible and straightforward, it may not be the most effective approach for fostering an engaging and inclusive learning environment; thus, the need to explore other instructional strategies like the brainstorming which can enhance active participation of students in the teaching and learning process.

Brainstorming is a teaching strategy which involves organizing learners into participatory small groups that indulges in critical thinking which could enhance free flow of ideas among them as they interact with each other and the teacher (Wagbara, 2020). Brainstorming strategy provide students with ample opportunity to be creative, to generate a large number of ideas by explanation, clarification and persuasion, and could allow students participate in discussions which can develop their ability to think critically through training and encouragement (Filgona, *et al.,* 2016). When students brainstorm on a given topic, a wider spectrum of ideas could be attained and the best among these ideas would be used to give the students a broader sense of reasoning and the ability to generate varieties of such ideas when confronted with similar or different real life problems. Obidiya (2022) observed that brainstorming enhances students understanding of learned tasks thereby leading to good interest and academic performance.

Brainstorming is a process of generating new ideas and solutions through intensive freewheeling group discussions. Hidayanti *et al.* (2018) defined it as the use of brain to engage in active problem solving. Hidayanti *et al.* (2018) noted that brainstorming involves thinking in numerous ways to dissect previous concepts, create new connections, extend the boundaries

of knowledge, and come up with brilliant ideas. The authors posited that brainstorming encourages critical thinking, student interaction, and serves to inspire and enhance students' academic performance. Mona (2019) asserted that brainstorming gives teachers the chance to introduce a problem and encourage students to come up with as many potential answers as they can in a short amount of time. Jacob *et al.* (2016) opined that brainstorming encourages learner to express their suggestion or ideas quickly and easily without much processed thought or reflection.

To quickly generate many ideas about a specific topic , the brainstorming instructional approach is typically employed in an individual or group context (Bringula *et al.* 2015). It can aid in fostering learners' imaginative thinking, energising them, and encouraging involvement and building on others' ideas. The cognitive abilities required for idea generation are developed in large part through the engagement of the students. A rigorous secondary school curriculum engages students with important concepts, encourages them to make connections between what they are learning and what they already know and with current issues, think critically and creatively about what they are learning, and apply what they have learned to real-world situations. The brainstorming strategy could give students many opportunities to be creative, generate many ideas through explanation, clarification, and persuasion, and participate in discussions to train and encourage critical thinking. Students can develop a wider range of ideas and use the best ones while brainstorming, giving them a broader sense of reasoning and the ability to generate a variety of such ideas when presented with similar or different real- life challenges. Brainstorming could improve learning compared to lectures

In the same vein, Eble (2016) noted that, students performed and retained knowledge better when taught using brainstorming teaching method . Moreover, the students are autonomous in developing ideas, no matter how obnoxious they may seem; therefore, they feel free. As such, students can increase the opportunity to learn from their mistakes and their peers while still reinforcing basic skills of brainstorming (Ikwumelu and Oyibe, 2014). Brainstorming incorporates critical thinking that is necessary for the thought process (Al-khatib, 2020). Also, brainstorming helps with team building, as it is appropriately suited for group projects. It is helpful in teaching secondary school courses especially like Business Studies. Students are able to come up with ideas regarding how to solve particular problems; and therefore, can come up with questions relating to how the problem comes about and the best way to tackle it (Ikwumelu and Oyibe, 2014).

The expository or the lecture method is a teacher-centered approach whereby the teacher takes part as an active participant and students are at the receiving end most of the time. Fawad (2015) asserted that the expository method is not only use for teaching theoretical concepts but it is also helpful for giving training of complex skills and procedures. In this method the teacher gives out all the facts he wants the students to know and master, caring very

little if at all whether or not, the students are actively participating and contributing to the success of the lesson . This method is good for a large class since much work could be easily covered in a shorter time. According to Zohrabi *et al.* (2020), teachers are more dominant sources of information, for instance, all questions posed by students, if any, are answered directly by teachers without students' involvement. In terms of class activities, teachers control all learning experiences. All in all, in the expository method, the primary task of a teacher is to transfer knowledge to learners (Oribhabor, 2020).

The expository teaching method is the method of teaching that is characterized by the following: it is teacher centered; it inhibits active participation of students in the classroom; it reduces students to mere note-taking and passive listeners and learners, perception and assimilation of the subject matter is slow; it is examination oriented (Azeez *et al.* 2023). The expository teaching method involves presenting clear and concise information in a purposeful way for on concept to another (Curzon, 2016). The teacher should also be able to use words that are familiar to the students, modulate his vice tone/pitch and also use gestures in a way that does not prevent students understanding of the concept at hand. Most educationists believe that students learn new concepts better if all they need to know is laid before them. Lecture approach is laid before them. Lecture approach makes room for large amounts of materials to be covered to a large class size in a single period. It provides aesthetic pleasure, promotes a good relationship between the teacher and the students during the course of the lesson and also awakens critical thinking skills in the students.

Uche (2017) affirmed that expository teaching method could be effectively used when a new topic is being introduced. It could be employed when presenting important materials, which are not easily available to students and when summarizing important points after a unit of study. For effective teaching to take place, the teacher must consider his/her communication problem, nature and background of the learners. There must be time for discussion, questioning must be well organized and teaching aids must be used for effective teaching.

Academic performance is a measurable and observable behaviour of a student within a specific period (Yusuf *et al*., 2016). The author added that it consists of scores obtained by a student in an assessment such as class exercise, class test, mid-semester examinations, mock examination, and end of semester examination. Patrick (2018) emphasized that academic performance of students is defined by a student's performance in an examination, tests, and in a course work. Academic performance is how students deal with their studies and how they cope with or accomplish different tasks given to them by their teachers, it is also the ability to study and remember facts and being able to communicate your knowledge verbally or down on paper (Siva, 2019). According to Sharm (2022), academic performance is how well a student is accomplishing his or her tasks and studies, but there are quite a number of factors that

determine the level and qualities of students' academic performance. These factors include grades, attendance and extracurricular activities. Grades are certainly the most well-known indicator of academic performance; grades are the students "score" for their classes and overall tenure. Grades are most often a tally or average of assignment and test score. Attendance is very essential, as it will be difficult to perform well in class if the student doesn't attend lectures. In schools, attendance is compulsory and numerous, unexcused absence may lead to notifying students' parents, makeup work for miss assignments or test.

Performance is the observable or measurable behaviour of a person in a particular situation usually experimental situation (Akerele and Afolabi, 2022). This means that performance measures the aspect of behaviour that can be observed at a specific period. Academic performance is commonly measured through examinations, but there is no general agreement on how it is best evaluated or which aspects are most important. Academic performance, which is measured by the examination results, is one of the major goals of a school. Hoyle (2016) argued that schools are established with the aim of imparting knowledge and skills to those who go through them and behind all this is the idea of enhancing students' academic performance and interest.

Interest is described as the attraction which forces or compels a learner to respond to a particular stimulus. Mondane (2014) noted that interest is a subjective feeling of concentration or curiosity over something. Interest is generally concerned with the state of attention which may be evoked as a result of emotion or passion for something. According to Scholl (2020), the excitement and feeling, whether pleasant or unpleasant is known as interest. In educational setting, interest is concerned with the keen desire or curiosity to learn more about a topic or engage more often in any teaching and learning activity. Interest is an important variable in learning because when a student becomes interested in an activity, he/she is likely to be more deeply involved in that activity. Schraw *et al*. (2021) noted that, lack of interest in a subject such as Business Studies could contribute greatly to poor academic achievement.

Statement of Problem

The introduction of business subjects at the junior secondary school level in Nigeria is principally aimed at equipping the students with skills that will make them employable in the world of work and also make them start their own businesses and become self-employed and possibly create job opportunities for others. Sadly, the researcher observed that majority of the students perform poorly in the subject. This is further supported by the results obtained by the students in selected schools in Akwa Ibom State in the Junior School Certificate Examinations Council for three years between 2021 to 2023 which shows very poor academic performance.

It has been observed by the researcher that teachers in Akwa Ibom State predominantly use expository teaching method for content delivery in various subjects including Business Studies. In order to cover the scheme of work, teachers resort to transmission of facts, dogmas and theories to the students who have to regurgitate them in examinations. The prevalent use of the expository teaching method in teaching Business Studies seems not to allow students to be actively involved in the teaching and learning process; thereby making teaching of some concepts boring, less interesting and abstract which often lead to poor academic performance.

In order to ensure effective teaching and learning of Business Studies at the secondary school level, there is need to search for students-centered teaching methods that can enhance students understanding of Business Studies concepts thereby enhancing their interest and good academic performance. Although, there have been numerous empirical studies that confirm brainstorming to be effective teaching methods, there seems to be little research focus on effect of brainstorming on students' academic performance and interest in Business Studies at the junior secondary school level. It is against this backdrop, that the present study was poised to examine brainstorming teaching methods and students' academic performance and interest in Business Studies in secondary schools in Akwa Ibom State.

Purpose of the Study

The purpose of this study was to examine the effect of brainstorming and expository teaching methods on students' academic performance and interest in Business Studies in secondary schools in Akwa Ibom State . Specifically, this study sought to:

i. examine the difference in the mean interest scores of students taught the concept of balance sheet using brainstorming and expository teaching methods

ii. determine difference in the mean performance score of students taught the concept of balance sheet using brainstorming and expository teaching methods

Research Questions

The following research questions were raised to direct the study:

i. What is the difference in the mean interest score of students taught the concept of balance sheet using brainstorming and expository teaching methods?

ii. What is the difference in the mean performance scores of students taught the concept of balance sheet using brainstorming and expository teaching methods?

Research Hypotheses

The following null hypotheses were formulated and tested at .05 level of significance:

i. There is no significant difference in the mean interest score of students taught the concept of balance sheet using brainstorming and expository teaching methods.
ii. There is no significant difference in the mean performance scores of students taught the concept of balance sheet using brainstorming and expository teaching methods.

Methodology

The design for the study was quasi-experimental design using non-randomnised pre-test and post-test control group. The design is suitable for this study because it comprises non-random assignments of participants into the control group and experimental group. The structure is as shown below:

E_1: O_1
C: O_2
Where E: experimental group 1 (taught using brainstorming)
C: control group (those taught with the expository method)
O_3: pre-test measurements
O_4:: post-test measurements

This study was conducted in Akwa Ibom State. The State is one the 36 States in Nigeria. It is located in the South-South geopolitical Zone of Nigeria. The State was created on 23rd September, 1987 with its capital in Uyo. The State shares boundaries with Abia State to the North, Cross River State to the East, Rivers State to the West and the Bight of Bonny to the South. It lies between latitude $4^0 30^1$ and $5^0 33^1$ North of Equator, and longitude $7^0 35$ and $8^0 35$ to the East of the Greenwich meridian (Akwa Ibom State Ministry of Environment, 2017). The population of the study consisted of all the 38, 293 junior secondary three (JS 3) students from all the 270 public secondary schools in Akwa Ibom State (State Secondary Education Board, 2024).

The study's sample comprised 147 Junior Secondary Three (JS 3) students, selected from three intact classes across three secondary schools within the designated study area. The intact class structure was maintained to preserve the natural classroom setting, allowing for a more authentic representation of student behaviour and responses in the study. A purposive sampling technique was employed to select the schools for the study. This method allowed for a deliberate and strategic selection based on specific criteria to ensure the schools met the study's objectives. The criteria used for choosing the schools were as follows:

i. Schools with qualified Business Studies teachers.
ii. Government-owned secondary schools.
iii. Schools that are currently presenting candidates for Junior Secondary School Certificate Examinations

iv. Schools with well-equipped ICT laboratories

Although few schools met these criteria, one school was randomly selected from each of the three senatorial districts respectively. In each of the selected schools, one intact class of junior secondary three students was used. The intact classes were randomly assigned to groups (brainstorming and expository teaching methods) through simple random sampling technique (balloting).

Researcher-developed instruments tagged: "Business Studies Performance Test (BSPT)" and "Business Studies Interest Inventory (BSII)" were used for data collection. The BSPTT had two sections- A and B. Section A elicited personal information. Section B was a 10-item multiple choice test with four options lettered A to D. Each correct answer was awarded 5 marks while each incorrect answer was awarded zero. Also, the Business Studies Interest Inventory (BSII) had two sections, the section was used to measure the interest of the students towards Business Studies and contained twenty items designed on a four point rating scale of Strongly Agree, Agree, Disagree and Strongly Disagree.

During the first week, the pretest titled "Business Studies Performance Test (BSPT)" and the "Business Studies Interest Inventory (BSII)" developed by the researcher, were administered to the students. The subject teachers (research assistants) distributed the instruments to the students, who were given one hour each to complete the instruments. After the students attempted the questions, all the completed copies of the instruments were collected.

In the second week, the research assistants divided the students into small groups of ten. After which, the students were guided by the research assistance to brainstorm on Meaning, Classification and Uses of Balance Sheet. In the third week, the students were exposed to the concept of Preparation of a Simple Balance Sheet and also difference between Vertical and Horizontal Balance Sheets by the research assistants and they brainstormed on these concepts . In the fourth week, they were allowed to review the lesson in their various groups in the classroom, ensuring that each group worked individually In the fifth week, the posttest titled "Business Studies Performance Test (BSPT)" and the "Business Studies Interest Inventory (BSII)" were administered to the students. They were given one hour each to complete the instruments, and after the allotted time, the research assistants collected the copies distributed. The entire process spanned five weeks.

The first week was used to administer the pretest titled "Business Studies Performance Test (BSPT)" and the "Business Studies Interest Inventory (BSII)" to the students. The research assistants distributed the instruments to the students, who were given one hour each to complete it. After the students attempted the questions, all the completed copies of the instruments were collected. In the second week, the research assistants taught the students the

concept of meaning, classification and uses of balance sheet using the expository teaching method. In the third week, the students were taught the concept of Preparation of a Simple Balance Sheet and also difference between Vertical and Horizontal Balance Sheets. In the fourth week, the research assistants (subject teachers) reviewed the lesson with the students in the classroom.

In the fifth week, the posttest titled Business Studies Performance Test (BSPT)" and the "Business Studies Interest Inventory (BSII)" were administered to the students. They were given one hour each to complete the instruments, and after the allotted time, the research assistants collected the copies distributed. The entire process spanned five weeks. The researchers personally visited the selected schools with letter of introduction from the department to obtain permission from the school authorities so as to be allowed to use the schools for the study and to request the subject teachers of the selected classes to assist as research assistants. The pre-test instrument was administered by the subject teachers who served as research assistants with the researcher to the students before the commencement of the lesson, after which, the post-test was administered to the same respondents after teaching the students in the three groups. A total of 147 copies of the instrument were given out to the respondents and were completely filled and retrieved representing 100 percent return rate. Mean and standard deviation were used for answering research questions while analysis of covariance (ANCOVA) was used to test the hypotheses at .05 level of significance. The choice of ANCOVA was informed by the use of pre-test as covariate to control for the effects of use of non-equivalent groups.

In order to take decision as regards the research questions, any group (either the control or treatments) with the higher mean score was regarded to achieve better than the one with the lower mean score. In terms of the hypotheses, whenever the probability level of significance was less than .05 the null hypotheses was rejected and whenever the probability level of significance was greater than .05, the null hypotheses was accepted.

Results

Table 1: Mean and standard deviation of the difference in the mean interest scores of students taught the concept of balance sheet using brainstorming and expository teaching methods (N=97)

Teaching method	N	Pre-interest		Post-interest		Mean difference
		Mean	SD	Mean	SD	
Brainstorming	50	39.20	13.30	65.84	9.29	26.64
Expository	47	39.92	15.28	48.00	13.78	8.08

Source: Researcher's Field Work (2025)

The result in Table 1 reveals that the pre-interest and post-interest mean score difference of 26.64 obtained by students taught the concept of balance sheet using brainstorming was greater than that of 8.08 obtained by those taught using the expository teaching method. The pre-interest and post-interest standard deviation scores of 13.30 and 9.29 as well as 15.28 and 13.78 obtained by the students taught with the brainstorming and expository teaching methods respectively showed that, though the students taught using brainstorming had the highest mean score difference, the scattering of the raw score from the mean was higher in the expository group. This means that there is difference in the mean interest scores of students taught the concept of balance sheet using brainstorming and expository teaching methods.

Research Question 2: What is the difference in the mean performance score of students taught the concept of balance sheet using brainstorming and expository teaching methods?

Table 2: Mean and standard deviation of difference in the mean performance score of students taught the concept of balance sheet using brainstorming and expository teaching methods **(N=97)**

Teaching method	N	Pretest		Posttest		Mean difference
		Mean	SD	Mean	SD	
Brainstorming	50	39.80	6.06	68.90	8.94	29.10
Expository	47	40.11	7.19	55.64	7.78	15.53

(Source: Researcher's Field Work, 2025)

The result in Table 2 reveals that the pretest–posttest mean score difference of 29.10 obtained by students taught the concept of balance sheet using brainstorming was greater than that of 15.53 obtained by those taught using the expository teaching method. The pretest and posttest standard deviation scores of 6.06 and 8.94 as well as 7.19 and 7.78 obtained by the students taught with the brainstorming and expository teaching methods respectively showed that, though the students taught using brainstorming had the highest mean score difference. This means that there is difference in the mean performance score of students taught the concept of balance sheet using brainstorming and expository teaching methods.

Research Question 1: What is the difference in the mean interest scores of students taught the concept of balance sheet using brainstorming and expository teaching methods?

Table 4.2: Mean and standard deviation of the difference in the mean interest scores of students taught the concept of balance sheet using brainstorming and expository teaching methods (N=97)

Teaching method	N	Pre-interest		Post-interest		Mean difference
		Mean	SD	Mean	SD	
Brainstorming	50	39.20	13.30	65.84	9.29	26.64
Expository	47	39.92	15.28	48.00	13.78	8.08

Source: Researcher's Field Work (2025)

The result in Table 2 reveals that the pre-interest and post-interest mean score difference of 26.64 obtained by students taught the concept of balance sheet using brainstorming was greater than that of 8.08 obtained by those taught using the expository teaching method. The pre-interest and post-interest standard deviation scores of 13.30 and 9.29 as well as 15.28 and 13.78 obtained by the students taught with the brainstorming and expository teaching methods respectively showed that, though the students taught using brainstorming had the highest mean score difference, the scattering of the raw score from the mean was higher in the expository group. This means that there is difference in the mean interest scores of students taught the concept of balance sheet using brainstorming and expository teaching methods in favour of those taught using brainstorming.

Null Hypothesis 1: There is no significant difference in the mean interest scores of students taught the concept of balance sheet using brainstorming and expository teaching methods.

Table 3: Result of ANCOVA analysis of the difference in the mean interest scores of students taught the concept of balance sheet using brainstorming and expository teaching methods (N=97)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	8323.71[a]	2	4161.85	31.67	.00
Intercept	27366.60	1	27366.60	208.24	.00
Pre_interest	613.15	1	613.15	4.67	.03
Teaching_methods	7815.80	1	7815.80	59.47	.00
Error	12353.57	94	131.42		
Total	338000.00	97			
Corrected Total	20677.28	96			

(Source: Researcher's Field Work, 2025)

The result in Table 3 shows the F-value of 59.47 and the corresponding probability level of significance of .00 alpha at 1 and 94 degrees of freedom. This level of significance is

less than .05 in which the decision is based. With this result, the null hypothesis was rejected. This implies that there is significant difference in the mean interest scores of students taught the concept of balance sheet using brainstorming and expository teaching methods.

Null Hypothesis 2: There is no significant difference in the mean performance score of students taught the concept of balance sheet using brainstorming and expository teaching methods.

Table 4: Result of ANCOVA analysis of the difference in the mean performance score of students taught the concept of balance sheet using brainstorming and expository teaching methods (N=97)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	4641.82[a]	2	2320.91	34.55	.00
Intercept	6413.21	1	6413.21	95.47	.00
Pretest	380.98	1	380.98	5.67	.02
Teaching_methods	4318.18	1	4318.18	64.28	.00
Error	6314.37	94	67.17		
Total	389550.00	97			
Corrected Total	10956.19	96			

(Source: Researcher's Field Work, 2025)

The result in Table 4 shows the F-value of 67.17 and the corresponding probability level of significance of .00 alpha at 1 and 94 degrees of freedom. This level of significance is less than .05 in which the decision is based.With this result, the null hypothesis was rejected. This implies that there is significant difference in the mean performance score of students taught the concept of balance sheet using brainstorming and expository teaching methods.

The finding of the difference in the mean interest scores of students taught the concept of balance sheet using brainstorming and expository teaching methods revealed that there is significant difference in the mean interest scores of students taught the concept of balance sheet using brainstorming and expository teaching methods. The finding can be attributed to the fact that brainstorming allows students to freely share ideas without judgment, fostering a safe and stimulating learning environment. This freedom sparks curiosity and creativity, which are essential components of student interest. Also, brainstorming is often conducted in groups, promoting collaborative learning. When students share and build on each other's ideas, they feel more connected and invested in the learning process, leading to greater interest in the subject. The finding is in line with that of Udabah and Nneji (2019) who found that that students in the experimental group taught mathematics with brainstorming problem solving techniques exhibited higher interest in mathematics than those taught with lecture method. The finding is

also in line with that of Obidiya (2022) who found that there was significant difference in the academic achievements of students in Business Studies taught with brainstorming as compared to those taught with the expository method in favour of those taught with brainstorming. The findings showed that there was significant difference in the interest of the students between those taught with brainstorming as compared to those taught with the expository method in favour of those taught with brainstorming .

The finding of the difference in the mean performance score of students taught the concept of balance sheet using brainstorming and expository teaching methods revealed that there is significant difference in the mean performance score of students taught the concept of balance sheet using brainstorming and expository teaching methods. This finding can be attributed to the fact that, in a brainstorming session, students are encouraged to think divergently, evaluate multiple perspectives, and refine their ideas. This cultivates critical thinking and problem-solving skills, which are crucial for understanding complex business concepts. Also, brainstorming promotes active learning by involving students in the construction of knowledge. Rather than passively listening to lectures, students actively contribute ideas, evaluate them, and build on others' thoughts. This leads to deeper processing and better understanding of contents. The finding lend credence to that of Wagbara (2020) whose finding showed that there was significant difference between the mean achievement scores of students exposed to brainstorming strategy in Chemistry and those of lecture method in favor of brainstorming strategy. The finding also lend credence to that of Atsuwe and Musa (2021) who found that there is more improvement in the academic performance of students based on brainstorming strategy than those taught based on the conventional teaching method. The finding further lend credence to that of Usman, *et al.,* (2023) who found that the students taught using brainstorming have better academic achievements than students taught using conventional method.

Conclusion

The major findings of the study showed that there is significant difference in the mean performance score of students taught the concept of balance sheet using brainstorming and expository method; there is significant difference in the mean performance score of students taught the concept of balance sheet using brainstorming and expository method; there is significant difference in the mean interest scores of students taught the concept of balance sheet using brainstorming and expository method. The study concluded that brainstorming enhance students' performance and interest in Business Studies in Akwa Ibom State more than the expository teaching method.

Recommendations

Based on the findings of the study the following recommendation were proffered that:

1. Brainstorming method should be adopted by teachers teaching Business Studies to enhance students' academic performance in the study area.
2. Policy makers should promote education policies that support active learning teaching methods like the brainstorming in teaching so as to enhance academic performance of male and female students

References

Akerele, J. A. & Afolabi, F. A. (2021) Effect of video on the teaching of library studies among undergraduates in Adeyemi College of Education, Ondo. Retrieved from: https://digitalcommons.unl.edu/libphilprac/680/ (Accessed 13/7/2023).

Akwa Ibom State Ministry of Environment (2017). *Research and Deve0l1opment Department (RDD)*. Uyo: Akwa Ibom State.

Bringula, R., Basa, R. S., Cruz, C.D., & Rodrigo, M. M. T. (2015). Effects of prior knowledge in mathematics on learner – interface interactions in a learning by teaching intelligent tutoring system. *Journal of Educational Computing Research,* 6(2): 321-333.

Curzon, P. A. (2016) Effects of lecture method and students interest towards Physics in the middle age school, Turkey. *American Journal of Physics*, 72 (6): 838.

Eble, K. E. (2016). *Discussion: The Craft of Teaching*. San Francisco: Jossey – Bass.

Fawad, B. (2015). Application of teaching methods in mathematics at secondary level in Pakistan. Pakistan Journal of Social Sciences, 35(2):935-946

Filgona, J., Linus, K. S, & Iyasco, M. D. (2016). Effect of brainstorming learning strategy on junior secondary school students' academic achievement in social studies in Yola educational zone, Adamawa State, Nigeria. *International Journal of Progressive Sciences and Technologies (IJPSAT), 3*(2): 108-115

Hidayanti, W. I., Rochintaniawati, D. & Rika, R. A. (2018). The effect of brainstorming on students' creative thinking skill in learning nutrition. *Journal of Science Learning,* 1(2): 44-48.

Hoyle, E. (2016) 'Teaching: Prestige, Status and Esteem'. *Educational Management and Administration,* 29(2):139-152.

Ikwumelu, B., & Oyibe, Y. (2014). The comparative effects of simulation games and brainstorming instructional strategies on junior secondary school students' achievement in Social Studies in Nigeria. *African Research Review, 5*(3):67-82

Jacob, F., Joel, F., Sababa, K.S. & Ndatuwong, L.G. (2016). Effects of concept mapping and brainstorming instructional strategies on junior secondary school students' achievement in social studies in mubi educational zone, Nigeria. *British Journal of Education, Society and Behavioural Science,* 18(2): 1-18.

Mondane, Y. (2014). *Toyota production system: An integrated approach to Just-in-time*, *Institute of Industrial Engineers*. Norcross: GA.

Oribhabor, C. B. (2020). Evaluating the effect of activity-based method of teaching mathematics on Nigerian secondary school students' achievement in mathematics. *Puissant – A Multidisciplinary Journal,* 1:77-87.

Patrick, E. A. (2018). *Effects of video-taped instruction on secondary school students' achievement and interest in Biology.* M. Ed Dissertation. University of Nigeria, Nsukka

Rufus, T. (2015). Influence of teacher-related factors on student performance in business studies in Bwari Municipality, Abuja. *Journal of Education and Practice*, 6(22):64-72

Scholl, A. (2020). Radical constructivism in communication science. *Constructivist Foundations, 6*(1), 51–57.

Schraw, G., Flowerday, T., & Lehman, S. (2021). Increasing situational interest in the classroom. *Educational Psychology Review*, *13*(3), 211–224.

Sharm, O. (2022). Meaning of academic performance. http://www.studymode.com/essayus /meaningofacademicperformancehtml. (Retrieved on 5/7/2023).

Uche, B. (2017). Effect of instructional video package on senior secondary students' performance in Chemistry. *Internal Journal of Science Education,* 2(3): 31-44.

Udabah, C.U. & Nneji, S.O. (2019). Effect of brainstorming problem solving technique on junior secondary school students' interest in mathematics in Agbani Education Zone of Enugu State. https://www.sgojahds.com/index.php/SGOJAHDS/article/view/44 (Retrieved on 4th August, 2020)

Usman,B., Hamza, U. & Inuwa, U. (2023). Effect of brainstorming on students' achievement and in economics in senior secondary schools of Bauchi state, Nigeria. Al- Hikmah Journal of Business Education, 3(2):69-76

Wagbara, S. O. (2020). Effect of brainstorming strategy on senior secondary school students' academic achievement in Chemistry in Rivers State, Nigeria. *Middle European Scientific Bulletin, 4,* 77-82.

Yusuf, T. A., Onifade, C. A. & Bello, (2016). Impact of class size on learning, behavioural and general attitudes of students in secondary schools in Abeokuta, Ogun State, Nigeria. *Journal of Research Initiatives,* 2(1): 1-16.

Zohrabi, M., Torabi, M. A., & Baybourdiani, P. (2020). Teacher-centred and/ or student-centred learning: English language in Iran. *English Language and Literature Studies, 2*(3):18-30